

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. - 9. (canceled).

10. (previously presented): A method for recovering performance of a discharge gas processing apparatus, which apparatus includes a honeycomb catalyst having gas conduits for feeding a gas to be treated, the catalyst being provided in a discharge gas conduit of the apparatus and, in use, performing gas treatment on the sidewalls of the gas conduits, characterized in that the honeycomb catalyst is in the form of a single layer of a flue gas NO_x removal catalyst, and that the method comprises rearranging the honeycomb catalyst for recovering performance thereof such that a deteriorated portion of the honeycomb catalyst is transferred from the inlet side of the discharge gas conduit so that a predetermined range of the discharge gas conduit from the inlet side represents a portion other than the deteriorated portion, wherein the deteriorated portion is on the upstream side in terms of the flow of the gas to be treated, extends to cover the predetermined range of the honeycomb catalyst, and is determined on the basis of a sustained turbulent flow distance which is the distance from the inlet to a site where turbulent flow energy is lost in the course of transition from turbulent flow to laminar flow.

11. (previously presented): A method for recovering performance of a discharge gas processing apparatus according to claim 10, wherein the honeycomb catalyst is rearranged such

that the gas feed direction is inverted and the deteriorated portion is disposed on the downstream side in terms of the flow of the gas.

12. (previously presented): A method for recovering performance of a discharge gas processing apparatus according to claim 10, wherein the honeycomb catalyst is cut perpendicular to the gas flow direction into a plurality of catalyst pieces, and the catalyst pieces are rearranged such that the deteriorated portion is not disposed on at least the furthest upstream side.

13. (previously presented): A method for recovering performance of a discharge gas processing apparatus according to claim 10, wherein the honeycomb catalyst is rearranged after the deteriorated portion has been removed.

14. (previously presented): A method for recovering performance of a discharge gas processing apparatus according to claim 10, wherein a portion of the sidewalls of the gas conduits of the honeycomb catalyst is removed through abrasion, the portion covering the deteriorated portion, and then the honeycomb catalyst is rearranged.

15. (previously presented): A method for recovering performance of a discharge gas processing apparatus according to claim 10, wherein the predetermined range corresponds to a range from the inlet to a site where the flow of the gas fed into the gas conduits is regulated and straightened, and the predetermined range L_b is determined on the basis of the equation: $L_b = a \cdot L_t$ (wherein L_t represents the sustained turbulent flow distance and a is a constant).

16. (previously presented): A method for recovering performance of a discharge gas processing apparatus according to claim 11, wherein the predetermined range corresponds to a range from the inlet to a site where the flow of the gas fed into the gas conduits is regulated and straightened, and the predetermined range L_b is determined on the basis of the equation: $L_b = a \cdot L_t$ (wherein L_t represents the sustained turbulent flow distance and a is a constant).

17. (previously presented): A method for recovering performance of a discharge gas processing apparatus according to claim 12, wherein the predetermined range corresponds to a range from the inlet to a site where the flow of the gas fed into the gas conduits is regulated and straightened, and the predetermined range L_b is determined on the basis of the equation: $L_b = a \cdot L_t$ (wherein L_t represents the sustained turbulent flow distance and a is a constant).

18. (currently amended): A method for recovering performance of a discharge gas processing apparatus according to claim 15, wherein the range L_b (mm) is represented by equation (A):

$$L_b = a(L_y/L_{ys} \cdot 22e^{0.035(L_y \cdot U_{in})}) \quad (A)$$

(wherein ~~U_{in}~~ U_{in} (m/s) represents a gas inflow rate, L_y (mm) represents an aperture size, L_{ys} is an aperture size of 6 mm (constant value), and " a " is a constant falling within a range of 3 to 5, when the aperture size (L_y) is 6 mm and the gas inflow rate is 6 m/s).

19. (currently amended): A method for recovering performance of a discharge gas processing apparatus according to claim 16, wherein the range L_b (mm) is represented by equation (A):

$$L_b = a(L_y/L_{ys} \cdot 22e^{0.035(L_y \cdot U_{in})}) \quad (A)$$

(wherein ~~U_{in}~~ U_{in} (m/s) represents a gas inflow rate, L_y (mm) represents an aperture size, L_{ys} is an aperture size of 6 mm (constant value), and " a " is a constant falling within a range of 3 to 5, when the aperture size (L_y) is 6 mm and the gas inflow rate is 6 m/s).

20. (currently amended): A method for recovering performance of a discharge gas processing apparatus according to claim 17, wherein the range L_b (mm) is represented by equation (A):

$$L_b = a(L_y/L_{ys} \cdot 22e^{0.035(L_y \cdot U_{in})}) \quad (A)$$

(wherein ~~U_{ins}~~ U_{in} (m/s) represents a gas inflow rate, L_y (mm) represents an aperture size, L_y is an aperture size of 6 mm (constant value), and "a" is a constant falling within a range of 3 to 5, when the aperture size (L_y) is 6 mm and the gas inflow rate is 6 m/s).

21. (previously presented): A method for recovering performance of a discharge gas processing apparatus according to claim 10, wherein the honeycomb catalyst is immersed at ambient temperature in regeneration water containing substantially no chlorine and no cleaning component, the catalyst is retransferred from the regeneration water, and residual water is retransferred from the catalyst.

22. (previously presented): A method for recovering performance of a discharge gas processing apparatus according to claim 11, wherein the honeycomb catalyst is immersed at ambient temperature in regeneration water containing substantially no chlorine and no cleaning component, the catalyst is retransferred from the regeneration water, and residual water is retransferred from the catalyst.

23. (previously presented): A method for recovering performance of a discharge gas processing apparatus according to claim 12, wherein the honeycomb catalyst is immersed at ambient temperature in regeneration water containing substantially no chlorine and no cleaning component, the catalyst is retransferred from the regeneration water, and residual water is retransferred from the catalyst.

24. (previously presented): A method for recovering performance of a discharge gas processing apparatus according to claim 15, wherein the honeycomb catalyst is immersed at ambient temperature in regeneration water containing substantially no chlorine and no cleaning component, the catalyst is retransferred from the regeneration water, and residual water is retransferred from the catalyst.

25. (currently amended): A method for recovering performance of a discharge gas processing apparatus according to ~~claim 16~~ claim 16, wherein the honeycomb catalyst is immersed at ambient temperature in regeneration water containing substantially no chlorine and no cleaning component, the catalyst is retransferred from the regeneration water, and residual water is retransferred from the catalyst.

26. (currently amended): A method for recovering performance of a discharge gas processing apparatus according to ~~claim 17~~ claim 17, wherein the honeycomb catalyst is immersed at ambient temperature in regeneration water containing substantially no chlorine and no cleaning component, the catalyst is retransferred from the regeneration water, and residual water is retransferred from the catalyst.

27. (previously presented): A method for recovering performance of a discharge gas processing apparatus according to claim 18, wherein the honeycomb catalyst is immersed at ambient temperature in regeneration water containing substantially no chlorine and no cleaning component, the catalyst is retransferred from the regeneration water, and residual water is retransferred from the catalyst.